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ABSTRACT

Information is presented on Scholastic Aptitude Test (SAT) performance of Maryland high school seniors who graduated in 1983, and characteristics of the students are examined. Of the 29,755 Maryland students who took the SAT in 1983, 18 percent were black, 20 percent attended nonpublic schools, and 53 percent were females. Maryland seniors obtained average scores on the SAT of 427-verbal, 466-math, and 893 combined. Males continued to score higher than females on both the mathematics and verbal sections of the SAT. Maryland seniors reported undertaking increasing amounts of coursework in mathematics, the physical sciences, and foreign languages. The highest percentage of seniors (16.3 percent) intended to major in business. The second highest percentage of graduating seniors intended to major in health fields (14.6 percent), and the third highest percentage intended to major in engineering (12.4 percent). Students who intended to major in the physical sciences, mathematics, and engineering obtained the highest average combined scores. Students who intended to major in home economics, education, business, and fine/applied arts obtained the lowest average combined scores. Comparisons to national trends in SAT scores are noted. (SW)

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Academic Profile of 1983 Maryland College-Bound Seniors

The College Entrance Examination Board annually publishes for each state detailed information concerning the characteristics and performance of high school seniors who have taken the Scholastic Aptitude Test (SAT). This is a summary of the information for Maryland high school seniors who graduated in 1983.

CHARACTERISTICS OF STUDENTS TAKING THE TEST

Figure 1 shows trends in the percentage of Maryland high school graduates who have taken the SAT. In 1983, 29,755 Maryland students took the SAT. This was about 51% of all graduating high school seniors in the State. The percentage age of graduating seniors taking the SAT has been in the 50-51% range for the past four years following steady increases throughout the 1970's.

Figure 2 shows that in 1983, 18% of all students taking the SAT were black. This was the same percentage as the previous year. By comparison, the percentage of black test takers in Maryland in 1974 was 13%.

The percentage of Maryland test takers who graduated from private/parochial schools has also increased in recent years. In 1983, 20% of all test takers were attending nonpublic schools. This is the same as the previous year but an increase from 18% two years earlier and from 16% during the mid-1970's.

The percentage of females taking the SAT now has been stable for a number of years. In 1983, 53% of Maryland test takers were females. For six of the last seven years 53% of students taking SAT have been females. This stability follows years of steady growth in the proportion of females entering college directly from high school.

FIGURE 1
% of Maryland High School Graduates Taking the SAT

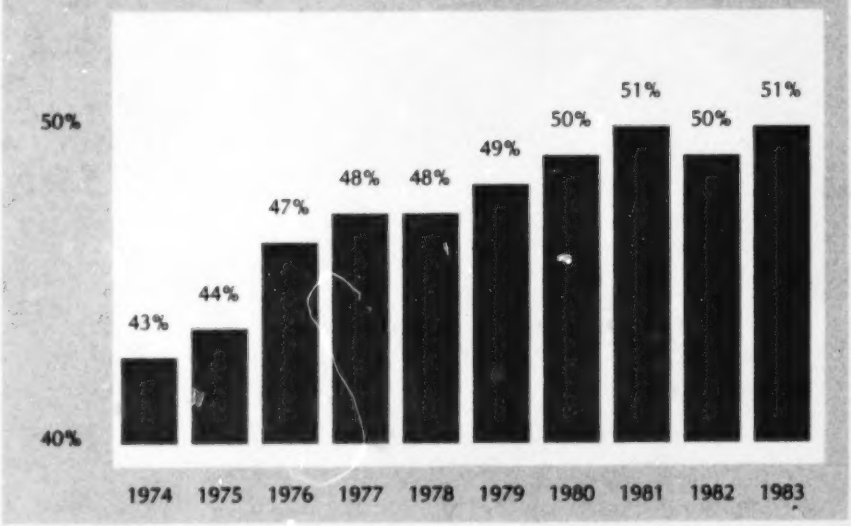
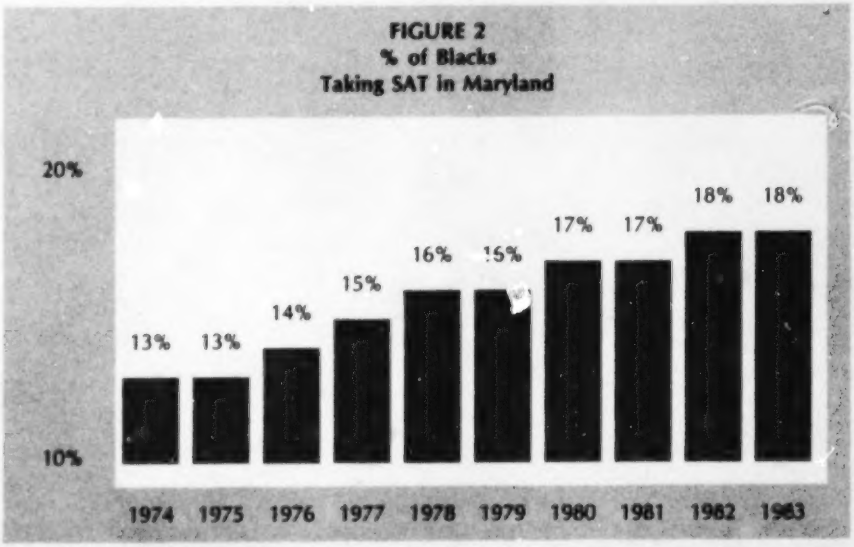


FIGURE 2
% of Blacks Taking SAT in Maryland



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TEST RESULTS

Figures 3 depicts trends in SAT scores for both Maryland and the nation. Maryland high school seniors in 1983 obtained average scores on the SAT of 427-Verbal, 466-Math, and 893 Combined. Both verbal and math averages were two points higher than in 1982. This was the second consecutive year that the scores of Maryland seniors have risen on the math section and the third straight year that verbal scores have increased.

Nationally, average combined SAT scores remained stable in 1983, with math increasing by one point and the average verbal score decreasing by one point. This followed last year's increase, which was the first year both verbal and mathematics scores increased at the same time since 1963.

The national and Maryland combined scores were equal in 1983. On the verbal portion of the exam, Maryland students scored above the national average; this had not been the case since 1978. Since 1975 Maryland students have scored below the national average on the math section and did so again in 1983. The gap, however, after reaching 5 points in 1981, is decreasing.

Males continue to score higher than females on both the mathematics and verbal portions of the SAT (see Figure 4). On the verbal exam, the difference between the average male and female scores in 1983 was 10 points. The difference has ranged between 6 and 16 points since 1974. On the mathmetics portion, the difference between males and females has been much greater. In 1983, the average male score was 49 points higher than the average female score. Since 1974, the difference between average male and female scores on the mathematics exam has ranged between 44 and 52 points.

FIGURE 3
Average SAT Scores of College-Bound Seniors 1972-1983

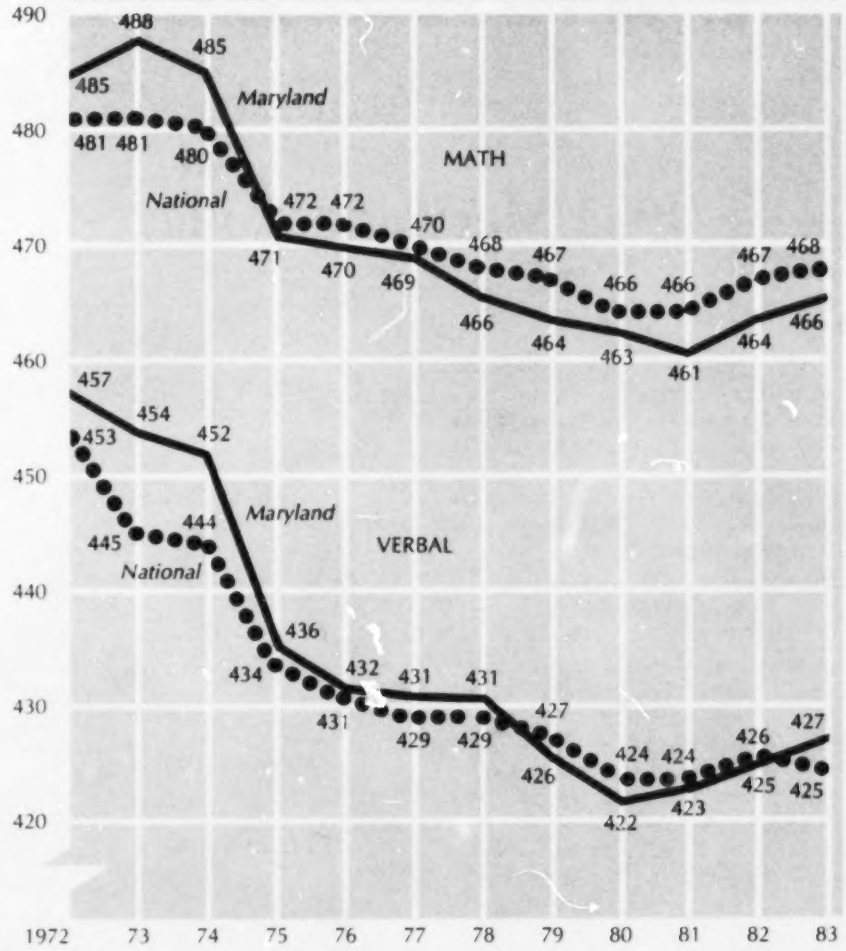


FIGURE 5
Average Years of Study in High School by Maryland Students Taking the SAT

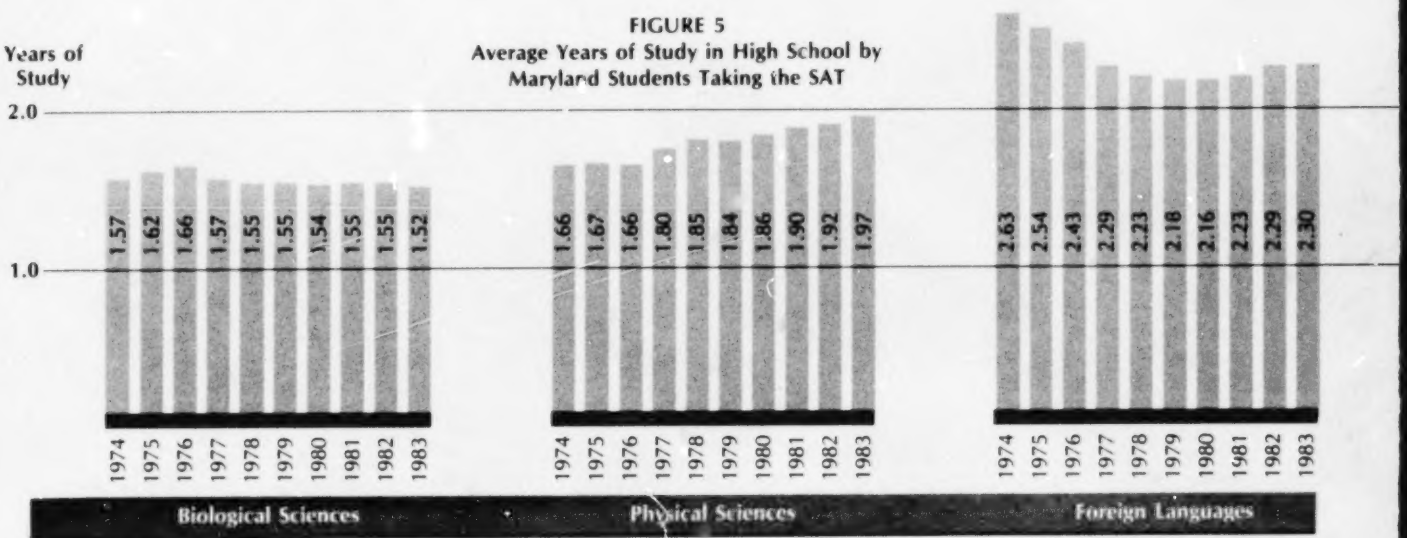
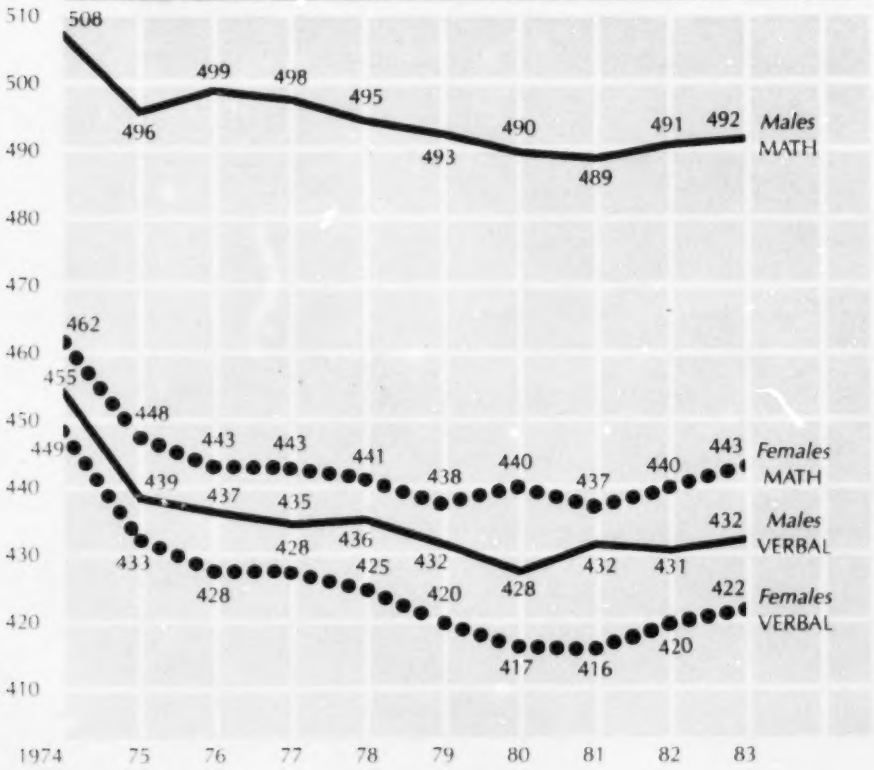
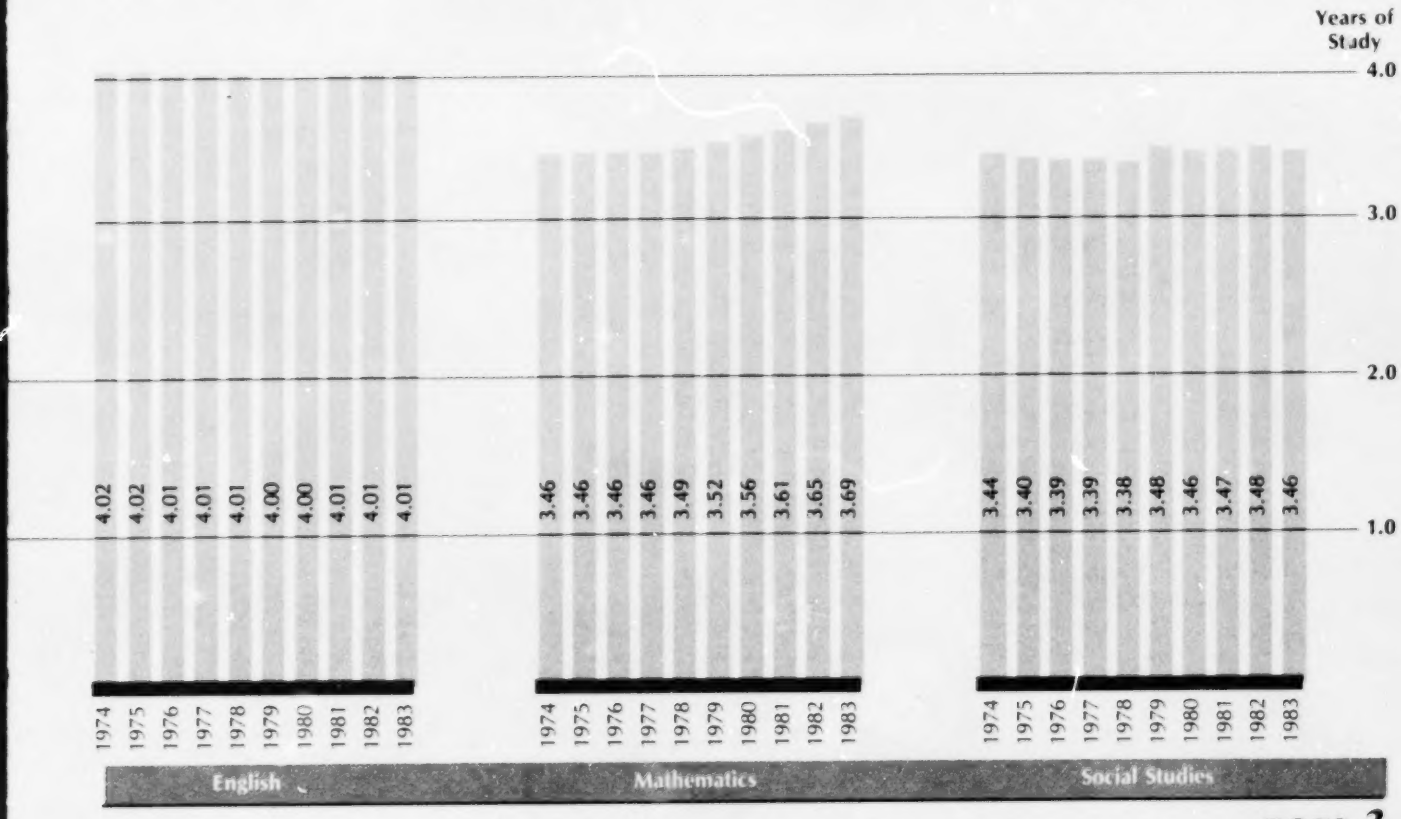


FIGURE 4
Average SAT Scores of Maryland College-Bound Seniors by Sex 1974-1983



HIGH SCHOOL PREPARATION OF TEST TAKERS

Figures 5 shows trends in the average number of years of study in various subject areas by Maryland high school seniors. In mathematics, the physical sciences, and foreign languages high school seniors continued to report increasing amounts of coursework. These trends suggest one possible explanation for the upturn in SAT scores in the last two years. The difference between males and females in terms of the amount of study in high school mathematics also suggests why males score on the average much higher than females on the mathematics portions of the SAT. While males and females reported similar grades in the mathematics courses they took, males reported taking a greater amount of coursework on the average in mathematics (3.83 years vs. 3.58 years for females) in 1983. This difference directly reflects differences in the amount of advanced study taken by males and females. For example, in 1983, 73.4% of males reported taking the equivalent of four or more years of coursework in mathematics while only 59.3% of females reported taking four or more years. In addition, males reported that 15.5% of their mathematics courses were honors courses compared to 12.8% for females. The difference in mathematics preparation of males and females, however, currently is somewhat less pronounced than in the mid-1970's.



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INTENDED PROGRAM MAJORS

The intended areas of study of the class of 1983 indicate a continuation of trends which generally have been apparent for a number of years (see Table 1). The highest percentage of seniors (16.3%) intended to major in business. However, interest in business probably has peaked. After three consecutive years in which the same percentage of graduating seniors expressed an interest in the field, the percentage of the class of 1983 expressing such an interest decreased slightly. The second highest percentage of seniors intend to major in health fields (14.6%)—this percentage has been relatively stable in recent years. The third largest percentage of seniors intend to major in Engineering (12.4%), which have shown steady growth as an intended area of study since the mid-1970's. The fifth most frequently chosen major was computer science (11.9%). This is a relatively large increase from the 8.4% intending to study in the field last year and continues the trend of increasing interest that began during the mid-1970's. Social sciences, while continuing to decline from the 1978 level, is still the fourth most popular field among Maryland seniors (12.2%).

A long-term downward trend that continued in 1983 was student interest in entering the teaching profession. In 1983 only 3.8% of the college-bound seniors intended to prepare to teach, compared to 4.4% a year earlier and 9.8% in 1975. Another field in which there has been substantial decline in student interest has been the biological sciences. In 1983, 3.6% of students intended to major in this area compared to 9.3% in 1975. Downward trends, although less pronounced, also continued in physical sciences, letters, agriculture/natural resources and fine and applied arts. Student interest in mathematics and foreign languages seems to have bottomed out, while interest in communications may have peaked.

SCORES BY INTENDED MAJOR

As shown in Table 2 there were major differences in the average scores obtained by students intending to major in different fields of study. Students who intended to major in the physical sciences, mathematics and engineering obtained the highest average combined scores. Students who intended to major in home economics, education, business, and fine/applied arts obtained the lowest average combined scores.

Table 2 also displays data for 1978. The top and bottom rankings have remained unchanged. Generally, the fields with scores above the State average in 1978 increased in the following five years, while those below decreased. Interestingly, the change in score of students intending to major in computer science decreased 23 points from 1978 to 1983, while the proportion of students intending to major in that area increased from 3.1% to 11.9%. On the other hand, the score of students who intended to major in Education increased from 813 in 1978 to 822 in 1983, while the proportion of students intending to major in education decreased from 7.1% to 3.8% over the same period.

TABLE 1

Trends in Intended Area of Study
Maryland College-Bound Seniors
Rank Order by 1983 Intentions

	1983 %	1982 %	1981 %	1980 %	1979 %	1978 %	1977 %	1976 %	1975 %
Bus. & Mgt.	16.3	16.7	16.7	16.7	16.1	14.1	12.4	11.1	9.7
Health Prof.	14.6	14.2	14.0	13.7	15.0	15.5	16.1	17.0	13.4
Engineering	12.4	11.7	11.1	10.4	9.3	8.7	8.7	7.3	5.7
Soc. & Behav. Sci.	12.2	12.8	12.7	13.2	13.5	14.4	13.9	13.4	14.9
Computer Sci.	11.9	8.4	5.9	4.6	3.7	3.1	2.7	2.1	1.6
Fine/Applied Art	5.7	6.5	7.2	7.9	8.0	7.9	7.6	7.5	7.4
Education	3.8	4.4	5.4	6.0	6.4	7.1	8.4	9.4	9.8
Communications	4.0	4.0	4.1	3.8	3.7	3.1	3.0	2.9	2.6
Biological Sciences	3.6	3.8	4.1	4.1	4.6	4.9	5.3	5.8	9.3
Physical Sciences	1.9	2.1	2.2	2.3	2.5	2.7	2.7	2.7	3.0
Arch./Env. Design	1.6	1.9	2.0	2.0	1.8	1.9	1.8	1.9	2.0
Letters	1.6	1.9	1.9	2.1	2.0	2.1	2.4	2.5	3.2
Agri./Nat. Resources	1.4	1.8	2.3	2.6	2.9	3.3	3.7	4.0	3.1
Mathematics	1.3	1.3	1.1	1.4	1.5	1.7	2.1	2.3	2.9
Foreign Language	0.9	0.8	0.8	0.9	0.8	0.9	1.1	1.0	1.3
Trade/Vocational	0.6	0.8	0.9	0.9	0.9	0.9	0.8	0.6	0.9
Home Economics	0.3	0.4	0.6	0.6	0.5	0.7	0.6	0.7	0.9
Other	1.8	1.9	2.0	2.1	1.9	2.0	2.5	3.2	2.2
Undecided	4.1	4.8	5.0	4.7	4.7	4.7	5.1	4.6	7.0
TOTAL	100	100	100	100	100	100	100	100	100

TABLE 2

Trends in Maryland Combined SAT Score
by Intended Area of Study
Rank Order by 1983 Score

Intended Area of Study	1983	1978	6 Year Change
Physical Sciences	1066	1061	(+ 5)
Mathematics	1045	1058	(– 13)
Engineering	1006	1000	(+ 6)
Foreign Language	995	971	(+ 24)
Letters	991	977	(+ 14)
Biological Sciences	985	991	(– 6)
Social & Behav. Sciences	921	909	(+ 12)
Arch. & Env. Design	898	924	(– 26)
(Maryland Average)	(893)	(897)	(– 4)
Health Professions	877	883	(– 6)
Computer & Info. Science	870	893	(– 23)
Communications	864	883	(– 19)
Agri. & Nat. Resources	861	886	(– 25)
Fine & Applied Arts	847	853	(– 6)
Business & Management	840	839	(+ 1)
Education	822	813	(+ 9)
Home Economics	795	806	(– 11)